

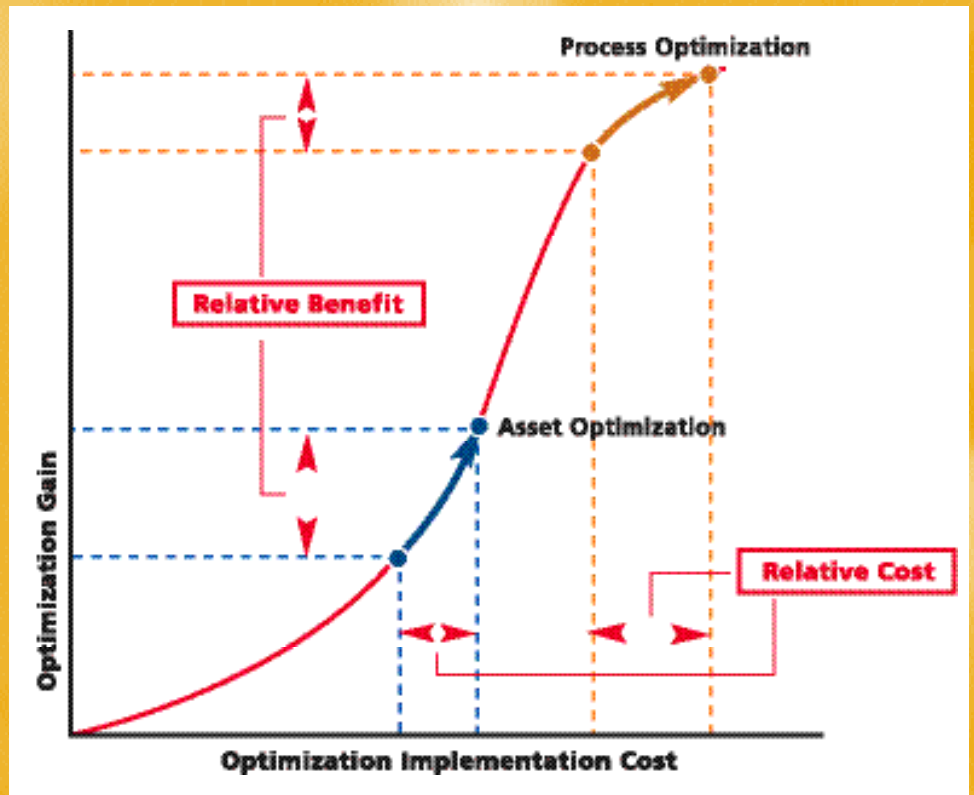
# PLANT ASSET MANAGEMENT

## What is it, why is it important, and what is the payback?

Over the past decade, the need to optimize the operation of process plants to gain competitive advantage has become the single most significant issue facing process industry enterprises.

This focus on optimization initially centered on process control and has resulted in significant improvements in process efficiency and performance.

Recently, however, process-related optimization has begun to reach the point of diminishing returns – those plants that have already implemented control optimization can still move up the optimization curve with further investment, but it is delivering less and less economic benefit. In contrast, there is another relatively untouched area of optimization that can provide enormous returns – the equipment assets that make the process run. This includes things like rotating and reciprocating machines, instrumentation, valves, vessels, piping, non-rotating (static) machines such as heat exchangers and boilers, and others. The process industries collectively refer to this new optimization discipline as “plant asset management.” It is focused on maximizing the performance and availability of production assets while minimizing their life-cycle costs.



**“Is this quest for better asset-related decision-making information paying off? *YES.*”**

Reflecting this past emphasis on process optimization, most process control systems now boast very sophisticated integration with business-level planning and scheduling systems, allowing plants to make enlightened business decisions based upon process-related considerations. However, the same cannot be said in most cases for asset-related information as part

of the decision-making process. This deficiency in asset-related information to aid in making business-level decisions is driving plants towards more sophisticated systems for assessing asset condition, just as it propelled them towards more sophisticated process control systems for more optimal business decisions. Is this quest for better asset-related decision-making information paying off? Yes. For those plants that have already been through one or more rounds of process optimization, they are finding that the same dollars spent on asset optimization will now yield better returns than if invested in further process optimization. Also, even the best optimized process is worthless if the assets prevent it from running as often as needed and at the desired throughput.

Not surprisingly, this situation has caused process enterprises to shift their investment focus to optimization of their production assets, where their investments can see greater returns. The result is an explosion of activity centered around Asset Management and Condition Monitoring. As confirmation, consider the following excerpts from a May 2001 report produced by the ARC Advisory Group\*:

*"End-users in nearly every process industry across the board are increasingly adopting asset management as a strategy to improve process efficiency and enhance their return on assets (ROA)."*

*"A key driver is the need for business systems (ERP) to have access to critical machinery and plant asset information when making decisions regarding maintenance and manufacturing operations and evaluating the associated risks."*

*"Plant Asset Management Systems ... are expected to grow at a compound annual growth rate of 27% between now and 2005."*

*"Based on actual growth of over 14 percent from the previous year, PAM and CM is one of the hottest areas in an otherwise floundering process automation market."*

*"Despite the economic turmoil in North America and other parts of the world, PAM and CM solutions continue to experience high rates of adoption by users who find the cost savings compelling enough to adopt in large numbers in good times and bad."*

*"End-users are recognizing that the investment in PAM and CM will pay back five to ten times the initial capital investment in record time."*

Clearly, **"plant asset management"** is where the action is occurring in today's process plants, and those adopting this strategy are reaping the benefits.

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\* Plant Asset Management and Condition Monitoring Worldwide Outlook, Market Analysis and Forecast through 2005, published May 2001 by ARC Advisory Group, Dedham, MA ([www.arcweb.com](http://www.arcweb.com))